



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,664	03/29/2001	Li Xu	71795/11926	6159
23380	7590	04/19/2005	EXAMINER	
TUCKER, ELLIS & WEST LLP 1150 HUNTINGTON BUILDING 925 EUCLID AVENUE CLEVELAND, OH 44115-1475			SHEW, JOHN	
			ART UNIT	PAPER NUMBER
			2664	

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/821,664

Applicant(s)

XU ET AL. 

Examiner

John L. Shew

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-22 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 9 and 11 is/are rejected.
- 7) ☒ Claim(s) 8, 10 and 13-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 6, 9, 11, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kung et al. (Patent number 6775273) in view of Jorgensen (Patent number 6628629).

Claim 1, Kung teaches a payload data unit switching engine of a payload data unit switching node (FIG. 4, column 5 lines 54-67, column 6 lines 1-12) referenced by the IP Central Station 200 with a switching engine to connect the Internet 180 with the PSTN 160, the switching engine comprising a) a payload data unit traffic management database (FIG. 2, column 8 lines 64-67, column 9 lines 1-16, column 10 lines 1-16, column 11 lines 36-55) referenced by the databases of the System Management Server 216 and the Call Manager 218 particularly the Least Cost Routing Database, b) a payload data unit traffic management processor performing intensive traffic management computations in ensuring guaranteed levels of service and updating the

payload data unit traffic management database (FIG. 2, column 8 lines 64-67, column 9 lines 1-9) referenced by the System Management Server 216 providing various database management functions which are traffic intensive, c) a payload data unit switching processor switching payload data unit traffic based switching database entries subject to payload data unit traffic shaping criteria held in the traffic management database (FIG. 2, column 7 lines 34-65, column 9 lines 10-16) referenced by the Central Router 210 switching data using data from the Least Cost Server 255 and the Domain Name Server 214 where the Least Cost Server database carries traffic shaping criteria based on cost and Quality Of Service. Kung teaches the payload data unit inherently by the use of the IP protocol.

Jorgensen teaches the IP protocol uses a payload data unit (FIG. 12G, column 5 lines 61-63) referenced by the MAC PDU of an IP frame.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a PDU as suggested by Jorgensen to the IP service control of Kung for the purpose defining a guaranteed level of network access to a user.

Claim 6, Kung teaches wherein the payload data unit switching node further comprises information exchange means enabling communication between the payload data unit switching processor and the payload data unit traffic management processor (FIG. 2, column 7 lines 34-51) referenced by the interfaces between the System Management Server 216 and Call Manager 218 forming the data traffic management and the Central

Router 210 forming the data switching processor. Kung teaches the payload data unit inherently by the use of the IP protocol.

Jorgensen teaches the IP protocol uses a payload data unit (FIG. 12G, column 5 lines 61-63) referenced by the MAC PDU of an IP frame.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a PDU as suggested by Jorgensen to the IP service control of Kung for the purpose defining a guaranteed level of network access to a user.

Claim 9, Kung teaches wherein the information exchange means includes a working store (Claim 2 lines 1-4) referenced by the storage of information in a relational database in a memory.

Claim 11, Kung teaches wherein the payload data unit traffic management processor includes the working store (FIG. 2, column 8 lines 64-67, column 9 lines 1-16, column 10 lines 1-16, column 11 lines 36-55) referenced by the databases of the System Management Server 216 and the Call Manager 218 which are working stores. Kung teaches the payload data unit inherently by the use of the IP protocol.

Jorgensen teaches the IP protocol uses a payload data unit (FIG. 12G, column 5 lines 61-63) referenced by the MAC PDU of an IP frame.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a PDU as suggested by Jorgensen to the IP service control of Kung for the purpose defining a guaranteed level of network access to a user.

Claim 17, Kung teaches wherein the information exchange means further comprises at least one dedicated data bus for communication between the payload data unit switching processor and the payload data unit traffic management processor (FIG. 2) referenced by the dedicated interface between Central Router 210 and the System Management Server 216. Kung teaches the payload data unit inherently by the use of the IP protocol.

Jorgensen teaches the IP protocol uses a payload data unit (FIG. 12G, column 5 lines 61-63) referenced by the MAC PDU of an IP frame.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a PDU as suggested by Jorgensen to the IP service control of Kung for the purpose defining a guaranteed level of network access to a user.

2. Claims 2, 3, 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kung and Jorgensen as applied to claim 1 above, and further in view of Rao (Patent number 6789118).

Claim 2, Kung and Jorgensen teach a simplified node payload data unit IP service control using multiple processors and databases. Kung does not teach a data traffic management database with resource utilization information.

Rao teaches a data traffic management database (column 2 lines 23-29) referenced by the call policy database, stores resource utilization information (FIG. 3, column 9 lines 4-15) referenced by the call policy parameters comparison to resource utilization, the resource utilization information specifying a current state of the data traffic conveyed by the data switching node (column 9 lines 16-22) referenced by the QoS level specifying the current state of the data traffic.

Claim 3, Rao teaches wherein the resource utilization information is stored in a bit encoded form (FIG. 11, FIG. 13) referenced by the Call Policy Record which is bit encoded in a database.

Claim 4, Rao teaches wherein the data traffic shaping criteria includes data traffic shaping heuristics (FIG. 11, column 14 lines 48-67, column 15 lines 1-8) referenced by the call policy record definition of QoS level in conjunction with the Quality of Access level to control traffic shaping heuristics, enabling the data switching processor to enforce service level guarantee data traffic constraints on data traffic flows processed by the data switching node (FIG. 13, column 1 lines 26-35, column 16 lines 4-38) referenced by service level guaranteed implemented by the QoS access thresholds in determining data packets to forward and switch.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the QoS call policy parameters of Rao to the Least Cost

Routing Server database of Kung and Jorgensen for the purpose of providing tiered access to the Internet for each incoming connection request.

Allowable Subject Matter

3. Claims 8, 10, 13, 14, 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 18-22 are allowed.

Response to Arguments

On review of the proposed amendments, the limitation of "payload data unit" in place of "data" does not change the scope of the claims. Kung teaches the use of the IP protocol which inherently has components of PDU or Payload Data Unit. Thus the rejections are maintained as such.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John L Shew whose telephone number is 571-272-3137. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

js



WELLINGTON CHIN
SENIOR PATENT EXAMINER